1: Conzemius M-4, 5 (1921) 1932
SA15 Mosquito SA15

or other food out of the hot ashes. This tool has also been observed among the Ulwa of Rio Escondido (Wickham, c: 200) and it is very common among the Rama and the Guatuso. The two last-named tribes, however, make these tongs from a small species of palm, the "caña danta" or "ahtak," which they call, like the tool itself, by the names *kiskis* (Rama) and *kaskas* (Guatuso).[22]

MORTARS.—Large wooden mortars (M.: *unu, no*) are found among the Miskito to pound grains and fruits with the aid of a hard wooden pestle (M.: *unu mihta*). The latter is generally single headed and tapers gradually toward the handle end; the double-headed type, which is practically cylinder shaped, is also found occasionally. This mortar has a wide distribution in South America, Africa and Oceania. It was found among the Miskito toward the end of the seventeenth century and is mentioned in those days side by side with the metate (M. W.: 307, 308).

METATES.—The Sumu do not know the wooden mortar, but they employ the metate or mealing stone (M.: *walpa-akbaya;* T., P.: *ki-watak;* U.: *ki-tiknaka*) for grinding maize and cacao and for pounding fruits and berries. The common metate, which may be found in almost every household, is a flat-topped, natural river bowlder, with a rounded waterworn pebble serving as muller or "mano" (M.: *walpa mihta;* S.: *ki mak*).

COOKING VESSELS.—Light tripod iron pots (M.: *dikwa;* S.: *suba, yasama suba*) are now found in every household, and have replaced the earthen vessels (M.: *sumi;* S.: *suba, sau suba*) for cooking purposes. In order to remove the hot pot from the fire the Indians use short wooden sticks with a hook at one extremity, which they put round the ears of the pot; it is known by the following names: M.: *tiñkrus, piñkrus;* T.: *iskrusta;* P.: *pan-alni;* U.: *pan-alka.*

WATER CONTAINERS.—Large calabashes with a small round hole cut in the apex, just large enough to insert a finger, are the common water canteens (M.: *kahmuntara;* T., P.: *sulun;* U.: *taman*). This is the "goat" of the Creoles. Sometimes a corncob is inserted in the opening as a stopper.

Segments of the large species of bamboo are also used to haul water in certain regions. They are made from a section of bamboo stem, so that a nodal septum serves as bottom, while the stem is cut off immediately in front of the next occurring nodal septum.

Fermented beverages are stored in large earthen vessels (M.: *sumi;* S.: *suba, sau suba*); wooden casks of foreign manufacture and homemade troughs are also employed for this purpose.

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[22] The Cuna and Chocó Indians of Panama use a similar tool consisting also of a double-bent sliver from the stem of a small palm, while the Ona and Yamana of Tierra del Fuego use a split tree branch for pincers. (Vide E. Nordenskiöld, Comparative Ethnographical Studies, vol. 8, Göteborg, 1930, pp. 65–67.)

1: Conzemius M-4, 5 (1921) 1932
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DISHES.—Calabashes (M.: *kahmi;* S.: *sutak*) take the place of plates, cups and glasses in the Indian houses; they are made from the fruit of the calabash tree, which is cut in two equal halves, and the soft watery pulp with the seeds removed. The thin, hard, woody shell is not fragile and lasts a long time. 415

By piercing such a calabash with small holes a strainer or collander (M.: *lili;* T., P.: *lilihna;* U.: *dilana*) is obtained; this is the "chachi" of the Creoles.

Large cups without handles, and basins are bought in the local shops; they are known by the name *mak*.

Square, round, or oval-shaped wooden bowls are made by the Indians of mahogany or other woods; they are known by their English names. These bowls are thick and clumsy and shaped like shallow basins; occasionally they are provided with very short, stout legs.

VARIOUS KITCHEN UTENSILS.—Flat withe baskets (M.: *usnuk, uslun;* S.: *uslun, wah-taina, sidan*), hanging under the roof in the smoke of the fire contain large wooden spoons (M.: *kustara*, from the Spanish "cuchara"; S.: *pan-yamna*), called "pat sticks" by the Creoles, small single-headed wooden pestles or wabul sticks (M.: *tuskaya;* T., P.: *pan-tirina;* U.: *pan-ruknaka*), cacao stirring sticks or "swizzle sticks" (M.: *purbaya;* S.: *pan-korona, pan-poronaka*). These various utensils are made from Spanish cedar, mahogany, sapodilla, or rosewood.

Iron graters are seen occasionally. The Sumu have a native name (*pān-alna*) for this implement, while the Miskito call it by its English name.

The rough leaves of a small tree (*Curatella americana* L.) and of a vine (*Davilla kunthii* St. Hil.) are employed instead of sandpaper for polishing purposes. Both these plants belong to the Dilleniaceae and are called "raspa-guacal," "hoja-chigüe" or "chumico" by the Ladinos; among the Miskito, Sumu, and Creoles they are known by the name *yahal*. 824 356

TOOLS

Before the discovery of America these Indians had few utensils and implements of stone; such articles were chiefly of wood, clay, shell, bone, etc. It would be nearer the truth to say that the Miskito and Sumu were living in the wood age instead of the stone age. Stone objects are, of course, the ones which have been preserved mostly. Fish teeth, snail and tortoise shells, quartz, flint, pebbles, and the like were used as scraping implements. Knives of bamboo are still used to sever the navel string of newborn babies. 412

MACHETE.—The machete (M., T., P.: *ispara*, from the Spanish "espada"; U.: *masat*), a heavy cutlasslike knife of about 2 feet in length, is the vade mecum of these Indians. It is their faithful

1: Conzemius M-4, 5 (1921) 1932
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shapes and sizes for hauling water, storing food and intoxicants, and for cooking purposes.[34]

POTTERY OBJECTS.—The various kinds of pottery vessels used for cooking and for storing liquids are known by the general name *sumi* among the Miskito, and *suba* or *sau suba* among the Sumu. Some of the large jars used in fermenting intoxicants reach 4 feet in height. Griddles are unknown to the Miskito; they are called *liwa* (T., P.) and *lawa* (U.). Jugs or water jars are known as *putisa* (M.) and *sutpanak* (S.); a small bowl, which is seen chiefly at the festivals, is called *uñkra* (M.), *sumai* (T., P.) or *uñkara* (U.). Most of these vessels, especially the larger ones, are slightly pointed at the base, so that they have to be placed in a cavity of the mud floor, or they are propped with stones to keep them upright. The fruit of the calabash tree served as an early model for the pottery vessels, and several types recall the shape of that fruit. Tobacco pipes (M.: *twako mina;* S.: *aka pan, aka pana*) are also made to the present day, while pottery whistles have been found in the old burial grounds.

MOLDING.—The making of the pottery is exclusively the work of the women. Potter's clay (M.: *slaubla;* S.: *sau*), noted for its good quality, may be hauled by the Indians from a great distance. The material is broken out of the ground with the aid of a strong, pointed stick. After being cleaned of all foreign particles it is mashed with the hands and mixed with water.[35] The clay is molded by hand, for the potter's wheel, like any other kind of wheel, was unknown in America in pre-Columbian days. Smaller vessels are shaped directly out of a lump of clay placed on a heavy wooden board upon which a large bijagua leaf has been placed; this leaf is continually turned round in the process of shaping.

In case a larger vessel is manufactured, the bottom portion is likewise shaped directly out of a lump of clay, and the walls are built up, not of one continuous coil, but of several, each succeeding one adding to the height of the pot. Old broken pottery vessels clearly show the coils by which they were built up.

When the desired height has been reached, the upper edge is neatly trimmed with the aid of the fragment of a calabash shell, wherein an indentation has been made, corresponding to the contour the vessel is to receive. When the latter is partly dried, it is polished with the aid of a smooth pebble.

FIRING.—After having been allowed to dry slowly in the shade for several days the ware is placed in a fire made on the ground in

[34] The present-day Miskito rely entirely on the more convenient and durable iron cooking pots for cooking purposes, but they still obtain, by way of trade from their Sumu neighbors, large clay vessels for the storing of mishla.

[35] Wickham (c: 207) mentions the Ulwa of Rio Escondido tempering the clay by mixture with a proportion of ashes from the bark of a certain forest tree, collected and burned for the purpose.

a b

a, Net carrying bag made from the fiber of the pita or silk grass plant. Sumu of Rio Patuca; b, saddlebag made by the hispanised Sumu of upper Rio Grande

[p. 50A]

1: Conzemius M-4, 5 (1921) 1932
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1: Conzemius M-4, 5 (1921) 1932
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it with sulphur. They apply a thin coat of the milk on cloth for the making of waterproof traveling bags, hunter's bags, and ponchos or raincoats. This industry is, however, chiefly in the hands of the Ladinos.

WOOD CARVING.—Wooden stools (M.: *sulati;* T., P.: *sini;* U.: *panba*), carved with the machete and the adze from a solid block of wood, are in universal use. In olden times these stools had three well-centered, elaborately decorated legs and a beautiful bird or animal head, reminding much of the metates which are occasionally found in the ancient sites.

Formerly a sort of walking stick or scepter of hard wood, surmounted by a carved human head, was an insignium of office and authority, but this custom has been introduced apparently by the English or Spanish, as there is no native name for it. Similar sticks now belong to the outfit of the Miskito sukya.

The central house post of the old-fashioned Sumu hut was also elaborately carved. The art was also practiced on various wooden domestic implements, as for instance the large wooden spoons (M.: *kustara;* T., P.: *pan-yamna;* U.: *kusaro*) and the cradles (M.: *kuheañ;* T., P.: *pala;* U.: *lim*). Wood carvings generally represent animal or human heads, or geometric figures, rarely floral designs. At the festivals of the dead celebrated by the Miskito headdresses carved into animal or human heads are sometimes worn.

ENGRAVED CALABASHES.—The common calabashes (M.: *kahmi, kami;* S.: *sutak*) of the Miskito and Sumu are often engraved with simple geometric designs, such as triangles, circles, zigzag lines, parallelograms, which recall those used in tattooing, on pottery vessels and painted tunu cloth, or the ones found on the large river bowlders. According to the Indians, however, these are merely impromptu inventions and serve no other purpose but that of identifying their calabashes. An elaborately carved and painted calabash, obtained from a Sumu chief of Rio Bocay, has been described and depicted by Sapper (f, 206–210).

BEADWORK.—The women of both tribes are very clever in making pretty bead ornaments of various colors to be worn around neck, wrist, below the knee, and above the ankle; the men also occasionally use them as watch fobs and as hatbands. The designs are chiefly animal, especially of snakes. Two patterns of beadwork have been pictured by Sapper (a, 274), one representing paddle handles, the other the skin of the *rikaya* salamander. The Indians utilize small glass beads (M.: *lilyura;* T., P.: *ala;* U.: *tasaska*), which they obtain from the foreign traders. The colors preferred are green, blue, black, and white, while red, brown, and yellow are only sparingly used. Fellschner (137), however, states that the blue beads are not liked by the Miskito and that the red and yellow ones are preferred by

1: Conzemius M-4, 5 (1921) 1932
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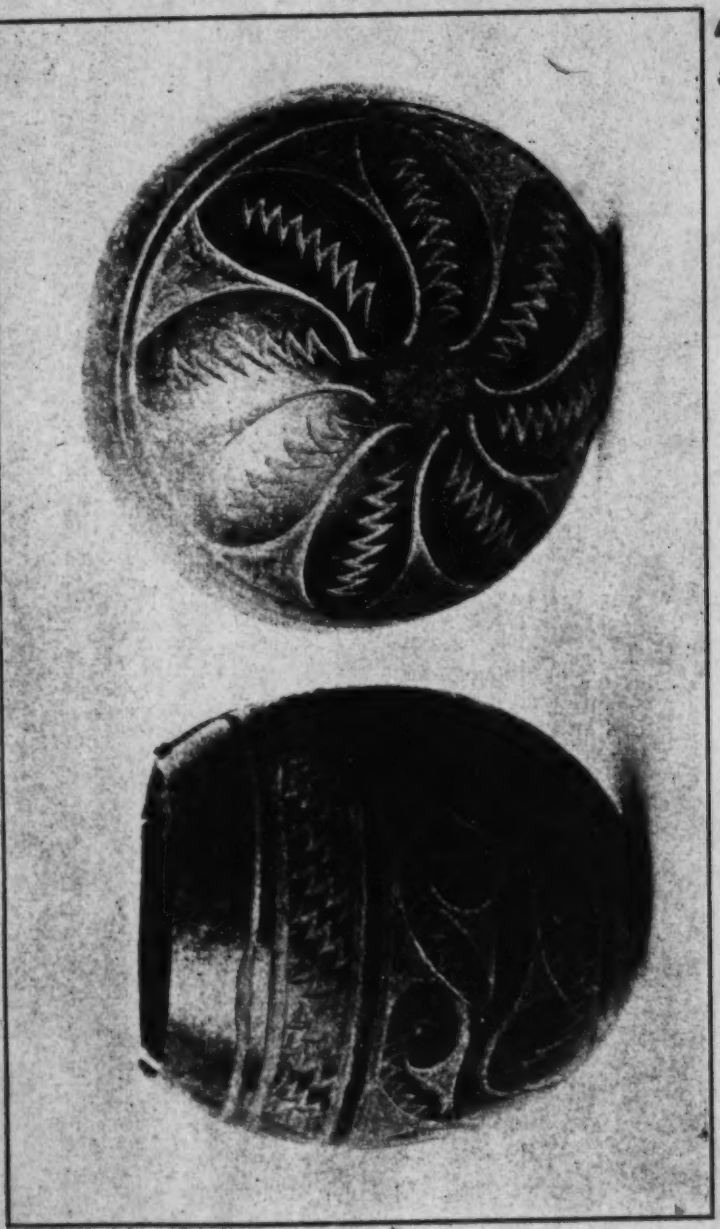

DECORATED CALABASH VESSELS
Bumn of upper Rio Grande.

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[p. 54 A]

2: Kirchhoff E-4 (no date) 1948
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342 time rectangular houses with a hip roof used by single families are built. The steep roof, thatched with palm leaves, was supported on posts. All houses have walls about 4 feet (1.3 m.) high. Lofts for storing food and for sleeping are made by laying split bamboo sticks across the beams.

352 Household furniture consists of mattresses of bark or deerskin, platform beds (*Paya* and *Northern Sumo*), sitting hammocks, wooden chests, three- or four-legged stools, and a notched-post ladder. Fires are built [354] of three logs on slightly raised mud platforms inside the houses. Stored 415 near these are cooking pots, bamboo tongs used to remove food from the fire, gourd containers and colanders, wooden spoons, ladles, and sections of bamboo used to haul water and to store beverages.

DRESS AND ORNAMENTS

291 Bark cloth was formerly the most common fabric, but it is now being replaced by cotton cloth, usually obtained by trade. Native cotton cloth was used largely for ceremonial and festive occasions. The *Mosquito* made blankets and clothing of palm fiber.

The male costume consists of a breechclout and poncho. The latter is tied under the arms and secured around the waist with a belt. Everyone went barefoot, but occasionally *Paya* men wore tapir-hide sandals and *Mosquito* men moccasinlike footgear. Women wore a knee-length, wrap-around, bark-cloth skirt, but the upper part of their bodies was nude. Children went nude until they were 8 or 10 years old, when they adopted a breechclout (*Sumo, Mosquito, Paya*). *Sumo* chiefs used a long tunic and a sash, apparently made of cotton. It was dyed and embroidered with crane feathers. These costumes, or modifications of them, are still [177] worn by the more conservative tribes, but commercial cloth is becoming more common and European styles are being adopted.

302 Men cut their hair short, but occasionally elder men left a lock at the back of the crown (*Mosquito*). In about 1850 the *Sumo* tied their hair into a queue, which was oiled or greased; at present they cut it short with bangs over the forehead. A crude comb was made of sticks tied together. Women cut the front hair in bangs allowing the rest to hang freely. The men attached feathers to their hair but women decorated [301] theirs with flowers and colored bands. At time of mourning the hair is cut off short. Both sexes devote considerable attention to their hair.

301 Nose pins and lip and ear ornaments of gold or turtle shell were worn. The *Mosquito* hung shell or brass plates from the lower lip. Conical or bell-shaped lip or chin ornaments were worn by the *Kukra*. Wooden plugs worn in the ear lobes were common. On festive occasions the *Mosquito* and *Sumo* wore either a cotton headband decorated with feathers or a cap made of bamboo decorated with feathers and with long, painted, bark-cloth streamers. The *Mosquito* hung metal or shell plaques and ornaments made of bone and feathers about their necks. *Sumo* women

2: Kirchhoff E-4 (no date) 1948
SA15 Mosquito SA15

wore tight cotton bands below the knees and above the ankles. Today 301
woven bands of glass beads are worn around the neck, wrists, and ankles. Straw hats are decorated with feathers and jaguar teeth (*Mosquito, Paya*).

Black paint is smeared over the body by the men (*Sumo, Mosquito,* 302
Paya) as a decoration and for protection from insects. Geometrical de- [751]
signs are drawn in red paint, mainly by the women. The *Sumo, Mosquito,* [531]
and *Paya* tattooed geometrical designs upon the face, arms, and breast. 304
The *Sumo* men made ornamental scars on their faces and chipped their teeth. All *Sumo* tribes except the *Bawihka* practiced head deformation. During infancy a folding flap of wood at the top of the cradle was tied firmly to the crown of the head.

TRANSPORTATION

Loads are carried with a band passing over the head (women) or 482
across the chest (men). Children are carried on the back in a blanket, [855]
the points of which are tied in front. [967]

The country has hunting trails but no roads. Most travel is done 501
in dugout canoes propelled with poles and broad-bladed paddles. Rafts are used for down-river traffic. Large keeled canoes, often equipped with a sail, are used at sea.

MANUFACTURES

Basketry.—Crude baskets, mainly of wickerwork, are made chiefly for 285
storage bins. Bark and silk grass fiber bags are very common. Bark fiber is used also to make tumplines, hammocks, and such.

Bark cloth.—Bark cloth is beaten out of ficus-tree bark with a grooved 287
wooden mallet.

Weaving.—Cotton is spun on a spindle, which has a whorl and is 286
rotated in a gourd. Coarse-textured but soft cotton cloth is woven on a two-beam loom. Thread was formerly dyed and designs were woven in the cloth. Sometimes feathers, particularly a fringe of white Muscovy duck down, were incorporated into the fabric.

Ceramics.—Pottery making has been described only from the *Sumo* 323
and *Paya*, although pottery was formerly made by all tribes. Women model small vessels out of a lump of clay but build up large ones with coils. They polish them with a pebble, dry them for several days, and fire them in the open. Pottery types include jars about 4 feet (1.3 m.) high, various types of jugs, water jars, small bowls, griddles, and tobacco pipes. All vessels have a convex base.

Miscellaneous manufactures.—Metates are still used by the *Paya* 415
and *Sumo*, and they have recently been adopted by the *Jicaque*, but the *Mosquito* are said no longer to use them. Metates are flat-topped boulders, which only rarely have a trimmed surface. Manos are round pebbles.

415 Both the *Paya* and the *Northern Sumo* occasionally use elaborately carved metates and well-made manos obtained at ancient ruins. The *Mosquito* made large wooden mortars and single-ended or, more rarely, double-ended pestles.

412 Tools used for working wood and for fashioning many miscellaneous articles were: Scrapers made of fish teeth, turtle shells, or stone and [352] knives made of split bamboo. Three-legged wooden stools were formerly [532] richly carved, often having a bird or animal head. Spoons, ladles, cradles, and the like are also made of wood. Gourds are often engraved with [531] simple geometrical designs (pl. 36, *bottom*).

411 **Weapons.**—*Mosquito, Sumo,* and *Jicaque* bows are 4 to 5 feet (1.3 to 1.6 m.) long, *Paya* specimens 6 feet (2 m.) long. They taper toward the ends and are rectangular in cross section. Killing arrows have a cane shaft and palm-wood foreshaft. Points of flint, obsidian, turtle shell, fishbone, and shark and alligator teeth were being replaced by iron ones as early as 1678 (Exquemelin, 1678). Arrows are not feathered. According to Exquemelin, the arrows used about the Laguna de Bluefields (*Kukra*) were 6 to 8 feet (2 to 2.6 m.) long with a flint tip and a wooden hook (possibly some type of barb?). Some arrows were weighted with pebbles. Stunning arrows have blunt knobs made of hard wood or beeswax.

The *Ulva* and *Paya* make blowguns, possibly only toys, from a reed 18 inches (45 cm.) long. These shoot wax pellets. The blowgun is, even among Hispanicized *Jicaque,* an effective weapon. It is bored from a branch of a certain tree, and clay pellets are carefully made by means of a gage (Von Hagen, 1943, pp. 50–52). The *Mosquito* and *Sumo* probably used the blowgun, but present information is not precise.

Arrow poison has been reported from some *Mosquito* tribes. Bancroft says that this was made from the juice of *Hippomane mancinella.* Conzemius did not observe this tree in the territory but mentions the possibility that the secretions from a frog (*Dendrobates tinctorius*) may have been used. The former poison is used by the *Carib,* and both types are used by the *Cuna* and *Chocó.*

POLITICAL ORGANIZATION

622 Little is known of the aboriginal organization of these tribes. Both chiefs and shamans had great power. Local governments now control the villages, but during the Conquest these tribes were organized for war in various ways. Chiefs were elected by the elderly men and their power was supreme. The office was not hereditary, but among the *Mosquito* a nephew or son-in-law of a chief might succeed him. The whole *Mosquito* tribe, under British guidance, was united and ruled by a "king" who carried as insignia a staff and a gold or silver breastplate.

2: Kirchhoff E-4 (no date) 1948
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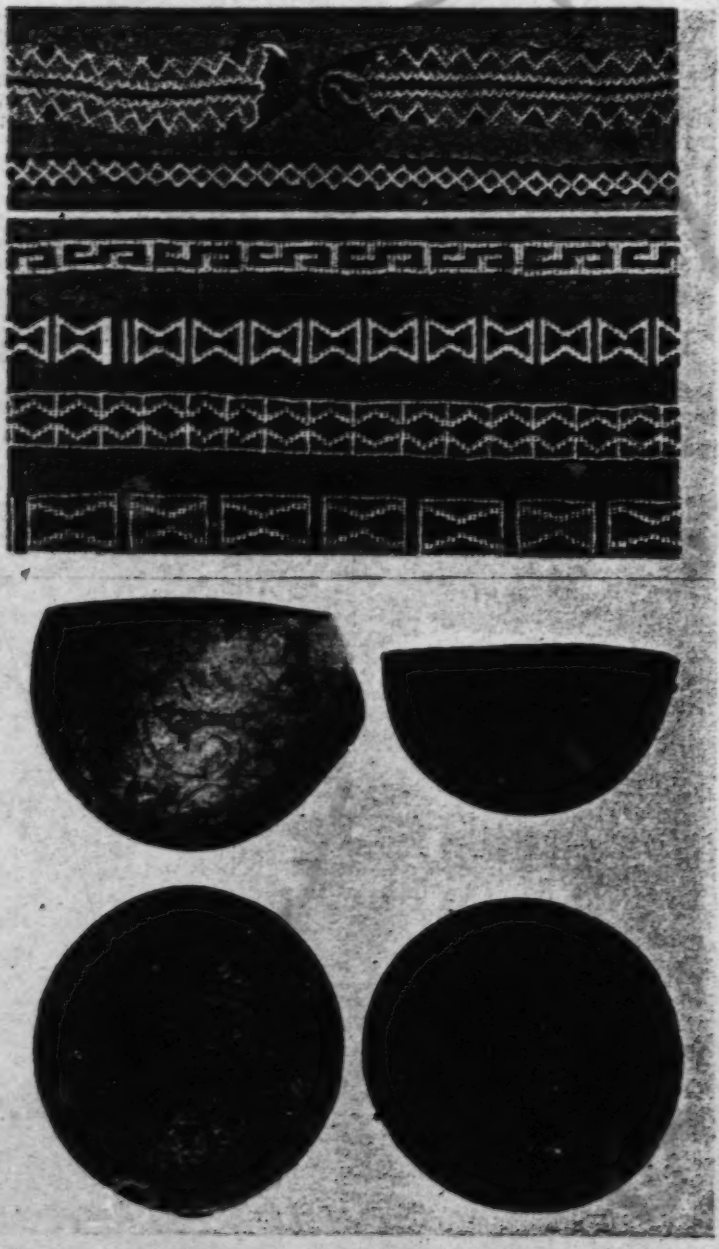

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PLATE 38.—Sumo manufactures. *Top:* Beadwork. *Bottom:* Decorated gourd bowls. (Courtesy American Museum of Natural History.)

[p. 228 - B]

3: Pijoan D-5 (ca. 1945) 1946
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cotton fluff is placed in the notch and the twirling continued. Several 373
fragments of the cotton begin to glow and these are fanned into flame. Today, many Indians use matches but the primitive method of making fire is still used to a great extent. Many of these fires may have been started a generation or more ago. They are tended or kept burning in iron or stone cooking ovens within the houses.

Many of the Miskito use bamboo tongs or tweezers to pull roasted 415
plantains, cassava, and other foods out of the hot ashes. The Miskitos use large wooden mortars *(uno, no)* and hard wooden pestles *(una, mikta)* to pound grains and fruits. The pestle is single headed and tapers toward the handle end. The Sumu Indians on the other hand use a metate and mealing stone for grinding maize and cacao. Light iron tripod post *(dikwa)* are found in every household, and have replaced earthen vessels for cooking purposes. Large calabashes with a small hole in the apex, just large enough to insert a finger, are the common water canteens *(kahmuntara)*. Segments of a large species of bamboo are also used to haul water in certain areas. They are made from a section of the bamboo stem cut so that a nodal septum serves as a bottom. The stem may be cut off immediately below the next septum or it may be cut outside of each septum to convert it into a small barrel. A hole is then drilled for filling and a plug inserted.

Fermented beverages are stored in large earthen vessels *(sumi)*. Plates, cups and glasses are made from the calabash *(kalmi)* fruit, which is cut and the soft watery pulp and seeds removed. Square, round, or oval shaped bowls are sometimes made of mahogany and other woods, but calabash bowls seem to be preferred. A variety of wooden spoons, pat sticks, and stirring sticks are also used. A primitive sugar mill *(tranko)* is employed to squeeze the juice from sugar cane.

It has been observed that the Miskito Indian has an enormous ap- 264
petite. At some meals he may take as many as a dozen helpings. On the other hand he may go days with hardly any food at all, specially during inclement weather, or during a hunt or a long travel. Generally, the women do the cooking, the men only on trips away from home. No regularity is observed in eating, most of the Indians eating whenever they are hungry or after hunting. They usually have one meal in the early morning and one at night before retiring. There is no midday meal. When a meal is ready the grownup men are served first with the best and largest shares. A calabash of soup or stew is usually served first. Salt if available is eaten separately. The women and children eat together. Indians rarely speak during a meal, and a visitor is never questioned while he too should remain in silence, since to do otherwise would be a breach of etiquette.